



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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www.miamidade.gov/economy

Johns Manville Corporation
717 17th Street
Denver, CO 80202

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: JM PVC Single Ply Roof Systems over Concrete Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 12-0410.07 and consists of pages 1 through 20.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 12-1113.24
Expiration Date: 12/06/17
Approval Date: 06/26/14
Page 1 of 20

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Concrete
Maximum Design Pressure: -217.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
JM PVC Membrane	50 mil x 39 or 78" x 100' 60 mil x 39 or 78" x 100' 80 mil x 39 or 78" x 75'	ASTM D4434	PVC polyester reinforced membrane.
JM PVC Fleece Backed	50 mil x 76" x 90' 60 mil x 76" x 90'	ASTM D4434	PVC polyester reinforced membrane backed with a lightweight polyester fleece.
DynaBase	90 mil x 39-3/8" x 49'	ASTM D6163 Type 1 Grade S	Fiberglass reinforced SBS Base Sheet.
JM PVC Profile	1-1/2" wide x 1-1/4" high x 10' long	Proprietary	Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing.
JM PVC Spine	3/4" wide x 13/16" high x 7' long	Proprietary	Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing.
JM Urethane Insulation Adhesive	N/A	Proprietary	Urethane insulation adhesive.
JM Two Part Urethane Insulation Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive
JM Roofing System Urethane Adhesive	N/A	Proprietary	A two-part urethane insulation adhesive
JM PVC Membrane Adhesive (Low VOC)	N/A	Proprietary	Low solvent based adhesive.
JM PVC Membrane Adhesive (Water Based)	N/A	Proprietary	Water borne adhesive
MBR RA Membrane Adhesive	1.5L Cartridge	Proprietary	Two part, cold process membrane adhesive
JM PVC Penetration Pan	Various	ASTM D4434	Molded PVC for flashing penetration.



JM PVC Pipe Boots	Various	ASTM D4434	Non-reinforced molded PVC flashing penetrations.
JM PVC Universal Corner	Various	ASTM D4434	Non-reinforced molded PVC for inside and outside corner flashing.
JM PVC T-Joint Patch	Various	ASTM D4434	Non-reinforced PVC used to cover T-joints and fasteners.
JM PVC Detail Membrane	Various	ASTM D4434	Non-reinforced PVC used for pipe and corner flashing.
JM PVC Detail Strip	Various	ASTM D4434	PVC used to waterproof joints.
JM PVC Coated Metal	Various	ASTM D4434	JM PVC laminated onto galvanized steel for metal flashings and edge details.
JM PVC Walkpad	Various	ASTM D4434	Textured PVC walk pad.
JM PVC Heavy-Duty Walkpad	Various	ASTM D4434	Textured PVC walk pad.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Invinsa Roof Board, Invinsa FR Roof Board	High-density Polyisocyanurate with fiber glass reinforced facers	Johns Manville
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI	Polyisocyanurate Insulation	Johns Manville
ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm 25 PSI	Polyisocyanurate Insulation with glass reinforced facers	Johns Manville
JM SECUROCK Gypsum-Fiber Roof Board	Fiber reinforced gypsum cover board	Johns Manville
Retro-Fit Roof Board	High density, perlite base cover board	Johns Manville
Fesco Board	Rigid perlite roof insulation board.	Johns Manville
Fesco Foam	Polyisocyanurate Insulation with perlite facer	Johns Manville



APPROVED FASTENERS:**TABLE 3**

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	All Purpose Fastener	Insulation and membrane fastener.	#14 x 4" max. #3 Phillips head	Johns Manville
2.	UltraFast 3" Round Metal Plate or UltraFast Square Recessed Metal Plate	Galvalume AZ55 steel plate.	3" round & 3" square	Johns Manville
3.	UltraFast Fastener	Insulation Fastener.	#12 x 8" max. #3 Phillips head	Johns Manville
4.	JM PVC RhinoPlate	Membrane bonding plate	3" Round	Johns Manville

EVIDENCE SUBMITTED:

<u>Test Agency Name</u>	<u>Identifier</u>	<u>Report</u>	<u>Date</u>
FM Approvals	3018807	FM 4470	06/25/04
	3014692	FM 4470	08/05/03
	3016629	FM 4470	12/12/03
	3025881	FM 4450	08/09/06
	3015444	FM 4450	07/11/03
	3012321	FM 4470	07/29/02
	3014751	FM 4450	08/27/03
	3007148	FM 4450	04/19/00
	3033308	FM 4470	09/03/08
	3035538	FM 4470	05/25/10
	3037540	FM 4450	10/20/10
	3035191	FM 4470	05/20/09
	3040105	FM 4470	11/24/10
	3030383	FM 4470	05/13/08
Exterior Research & Design, LLC	02764.09.05	FM 4470/TAS 114	09/09/05
	02762.03.05	FM 4470/TAS 114	03/30/05
Momentum Technologies, Inc.	NX21J0A	ASTM D 4434	06/01/11
	NX21J0B	ASTM D 4434	07/20/11
	NX21J0C	ASTM D 4434	06/01/11
PRI Construction Materials Technologies, LLC	JMC-088-02-01	ASTM D1876/TAS 117(B)	09/06/13
	JMC-143-02-01	TAS 114 D	07/01/13
	JMC-107-02-01-R2	ASTM D5147/D903/D1876 TAS 117(A)/(B)/(C)	08/19/13



APPROVED ASSEMBLIES

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(1): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ACFoam II, Multi Max FA Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Invinsa Roof Board Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the Invinsa Roof Board as specified below.

Option #1: Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) at a rate of 0.83 gal./sq. on both membrane and substrate with min. 1.5" heat welded side laps.

Option #2: Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) at a rate of 0.67 gal./sq., on both membrane and substrate with min. 1.5" heat welded side laps.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9.)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(2): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Invinsa Roof Board Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(3): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(4): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Invinsa Roof Board		
Minimum ¼" thick	N/A	N/A

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.67 gal./sq. on the substrate with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(5): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI		
Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(6): One or more layers of insulation adhered to a primed deck. Membrane is subsequently fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

All General and System limitations apply.

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick	N/A	N/A
Fesco Board Minimum 1.0" thick	N/A	N/A
Fesco Foam Minimum 1.5" thick	N/A	N/A
Retro-Fit Minimum ½" thick	N/A	N/A

Note: All insulation shall be adhered to the primed deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-25 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -150 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(7): One or more layers of insulation adhered . Membrane is adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier : DynaBase adhered to structural concrete deck with MBR RA Membrane Adhesive applied in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads spaced 6" o.c.

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered with $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads of JM Roofing System Urethane Insulation Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: DynaBase adhered to insulation with MBR RA Membrane Adhesive applied in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads spaced 6" o.c..

Membrane: JM PVC Fleece Backed membrane adhered to base sheet with $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads of JM Roofing System Urethane Insulation Adhesive, spaced 12" o.c. with min. 1.5" heat welded side laps.

**Maximum Design
Pressure:** -67.5 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(1): One or more layers of insulation simultaneously attached. Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI	1 with 2	1:2 ft ²
Minimum 1.5" thick		

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq. on the substrate with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(2): All layers of insulation simultaneously attached. Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
Plywood		
Minimum 19/32" thick	1 with 2	1:2 ft²

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener densit.y. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane adhered to the insulation as specified below.

Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -45 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(3): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI	1 with 2	1:1.78 ft²
Minimum 1.5" thick		

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(4): One or more layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	1 with 2	1: 2 ft²

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation as specified below. with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.67 gal./sq., on the substrate with min. 1.5" heat welded side laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(5): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI	1 with 2	1:78 ft²
Minimum 1.5" thick		

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(6): One or more layers of insulation preliminarily fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
SECUROCK or Invinsa Roof Board		
Minimum 0.25" thick	1 with 4	1:5.33 ft²
Plywood		
Minimum 19/32" thick	1 with 4	1:5.33 ft²

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane is induction welded to JM PVC RhinoPlates. Side lap is sealed with minimum 1.5" wide heat welds offset from plates.

Maximum Design Pressures: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(7): One or more layers of insulation preliminarily fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
JM SECUROCK or Invinsa Roof Board		
Minimum 0.25" thick	1 with 4	1:4 ft²
Plywood		
Minimum 19/32" thick	1 with 4	1:4 ft²

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane is induction welded to JM PVC RhinoPlates.. Side lap is sealed with minimum 1.5" wide heat welds offset from plates.

Maximum Design Pressures: -67.5 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete.

System Type F: Membrane fully adhered to deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate with min. 1.5” heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5” heat welded side laps.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the existing roof system is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

